**Practical No.**

**Rollup Queries**

create table dimenssion\_tab1(

fact\_1\_id number not null,

fact\_2\_id number not null,

fact\_3\_id number not null,

fact\_4\_id number not null,

sales number(10,2) not null);

insert into dimenssion\_tab1 select trunc(DBMS\_RANDOM.value(low=>1,high=>3))as fact\_1\_id,

trunc(DBMS\_RANDOM.value(low=>1,high=>6))as fact\_2\_id,

trunc(DBMS\_RANDOM.value(low=>1,high=>11))as fact\_3\_id,

trunc(DBMS\_RANDOM.value(low=>1,high=>11))as fact\_4\_id,

round(DBMS\_RANDOM.value(low=>1,high=>100),2)as sales

from dual connect by level <=100;

**Q. Display the average of fact and sum of sales using one fact\_id.**

SQL> select fact\_1\_id,count(\*) as avg\_fact,sum(sales) as sum\_sale from dimenssio

n\_tab1 group by fact\_1\_id order by fact\_1\_id;

FACT\_1\_ID AVG\_FACT SUM\_SALE

---------- ---------- ----------

1 43 2147.97

2 57 3313.65

**Q. Display the average of fact and sum of sales using two fact\_id.**

SQL> select fact\_1\_id,fact\_2\_id,count(\*) as avg\_fact,sum(sales) as sum\_sale

from dimenssion\_tab1 group by fact\_1\_id,fact\_2\_id order by fact\_1\_id,fact\_2\_id;

FACT\_1\_ID FACT\_2\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ----------

1 1 3 185.17

1 2 10 542.05

1 3 16 641.91

1 4 7 315.68

1 5 7 463.16

2 1 13 790.91

2 2 12 796.71

2 3 9 396.12

2 4 10 690.81

2 5 13 639.1

**Q. Display the average of fact and sum of sales using three fact\_id.**

SQL> select fact\_1\_id,fact\_2\_id,fact\_3\_id,count(\*) as avg\_fact,sum(sales) as sum\_sale

from dimenssion\_tab1 group by fact\_1\_id,fact\_2\_id,fact\_3\_id order by fact\_1\_id,fact\_2\_id,fact\_3\_id;

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ----------

1 1 3 1 76.04

1 1 7 1 22.49

1 1 10 1 86.64

1 2 2 2 137.25

1 2 5 3 104.32

1 2 6 1 51.47

1 2 7 3 232.85

1 2 8 1 16.16

1 3 1 3 84.35

1 3 2 2 16.83

1 3 4 2 135.59

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ----------

1 3 5 2 90.8

1 3 6 1 84.52

1 3 7 2 148.37

1 3 9 3 54.06

1 3 10 1 27.39

1 4 2 1 9

1 4 4 2 133.37

1 4 5 1 50.35

1 4 6 1 11.68

1 4 7 1 48.88

1 4 8 1 62.4

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ----------

1 5 1 1 67.22

1 5 3 2 92.08

1 5 4 1 75.18

1 5 5 2 132.42

1 5 6 1 96.26

2 1 1 1 10.95

2 1 2 1 80.75

2 1 4 1 51.31

2 1 5 1 47.6

2 1 6 3 241.65

2 1 7 2 86.66

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ----------

2 1 9 2 111.06

2 1 10 2 160.93

2 2 1 3 163.8

2 2 2 2 54.32

2 2 3 1 87.08

2 2 4 1 68.1

2 2 6 1 76.5

2 2 7 2 166.27

2 2 9 2 180.64

2 3 1 2 74.08

2 3 3 1 14.35

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ----------

2 3 4 2 127.37

2 3 6 2 86.45

2 3 7 1 76.29

2 3 10 1 17.58

2 4 3 1 99.62

2 4 5 3 213.35

2 4 6 4 290.85

2 4 8 1 2.84

2 4 9 1 84.15

2 5 1 2 50.78

2 5 2 2 62.05

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ----------

2 5 3 4 252.22

2 5 4 1 30.59

2 5 7 1 71.64

2 5 8 2 98.36

2 5 9 1 73.46

**Q. Display the average of fact and sum of sales using four fact\_id.**

SQL> select fact\_1\_id,fact\_2\_id,fact\_3\_id,fact\_4\_id,count(\*) as avg\_fact,sum(sal

es) as sum\_sale from dimenssion\_tab1 group by fact\_1\_id,fact\_2\_id,fact\_3\_id,fact\_4\_id ord

er by fact\_1\_id,fact\_2\_id,fact\_3\_id,fact\_4\_id;

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID FACT\_4\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ---------- ----------

1 1 3 4 1 76.04

1 1 7 5 1 22.49

1 1 10 10 1 86.64

1 2 2 2 1 99.43

1 2 2 9 1 37.82

1 2 5 1 1 7.76

1 2 5 2 1 38.28

1 2 5 4 1 58.28

1 2 6 10 1 51.47

1 2 7 2 1 87.31

1 2 7 6 1 97.56

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID FACT\_4\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ---------- ----------

1 2 7 10 1 47.98

1 2 8 2 1 16.16

1 3 1 1 1 52.71

1 3 1 5 1 22.08

1 3 1 10 1 9.56

1 3 2 6 1 9.4

1 3 2 7 1 7.43

1 3 4 3 1 84.71

1 3 4 6 1 50.88

1 3 5 2 1 72.16

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID FACT\_4\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ---------- ----------

1 3 6 2 1 84.52

1 3 7 1 1 53

1 3 7 4 1 95.37

1 3 9 3 1 30.8

1 3 9 4 1 10.84

1 3 9 10 1 12.42

1 3 10 9 1 27.39

1 4 2 5 1 9

1 4 4 7 1 92.42

1 4 4 9 1 40.95

1 4 5 6 1 50.35

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID FACT\_4\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ---------- ----------

1 4 6 9 1 11.68

1 4 7 2 1 48.88

1 4 8 3 1 62.4

1 5 1 5 1 67.22

1 5 3 2 1 84.21

1 5 3 7 1 7.87

1 5 4 9 1 75.18

1 5 5 5 1 92.97

1 5 5 6 1 39.45

1 5 6 9 1 96.26

2 1 1 3 1 10.95

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID FACT\_4\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ---------- ----------

2 1 2 1 1 80.75

2 1 4 2 1 51.31

2 1 5 2 1 47.6

2 1 6 7 1 74.62

2 1 6 8 1 74.46

2 1 6 9 1 92.57

2 1 7 1 1 42.79

2 1 7 9 1 43.87

2 1 9 6 1 62.34

2 1 9 10 1 48.72

2 1 10 3 1 72.16

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID FACT\_4\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ---------- ----------

2 1 10 7 1 88.77

2 2 1 1 1 68.21

2 2 1 6 2 95.59

2 2 2 2 1 14.19

2 2 2 8 1 40.13

2 2 3 3 1 87.08

2 2 4 1 1 68.1

2 2 6 9 1 76.5

2 2 7 7 1 94.46

2 2 7 10 1 71.81

2 2 9 1 1 94.29

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID FACT\_4\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ---------- ----------

2 2 9 2 1 86.35

2 3 1 6 1 4.94

2 3 1 8 1 69.14

2 3 3 1 1 14.35

2 3 4 1 1 82.43

2 3 4 6 1 44.94

2 3 6 5 1 53.39

2 3 6 7 1 33.06

2 3 7 7 1 76.29

2 3 10 2 1 17.58

2 4 3 8 1 99.62

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID FACT\_4\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ---------- ----------

2 4 5 1 1 33.45

2 4 5 2 1 84.56

2 4 5 9 1 95.34

2 4 6 2 2 111.01

2 4 6 6 1 99.1

2 4 6 7 1 80.74

2 4 8 10 1 2.84

2 4 9 2 1 84.15

2 5 1 4 1 14.69

2 5 1 5 1 36.09

2 5 2 1 1 53.29

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID FACT\_4\_ID AVG\_FACT SUM\_SALE

---------- ---------- ---------- ---------- ---------- ----------

2 5 2 10 1 8.76

2 5 3 3 1 55.18

2 5 3 4 1 86.71

2 5 3 6 1 70.53

2 5 3 9 1 39.8

2 5 4 8 1 30.59

2 5 7 8 1 71.64

2 5 8 2 1 87.23

2 5 8 3 1 11.13

2 5 9 7 1 73.46

**Q. Display sum of sales using two fact\_id.**

SQL> select fact\_1\_id,fact\_2\_id,sum(sales) as sales\_value from dimenssion\_tab1

group by Rollup(fact\_1\_id,fact\_2\_id) order by fact\_1\_id,fact\_2\_id;

FACT\_1\_ID FACT\_2\_ID SALES\_VALUE

---------- ---------- -----------

1 1 185.17

1 2 542.05

1 3 641.91

1 4 315.68

1 5 463.16

1 2147.97

2 1 790.91

2 2 796.71

2 3 396.12

2 4 690.81

2 5 639.1

FACT\_1\_ID FACT\_2\_ID SALES\_VALUE

---------- ---------- -----------

2 3313.65

5461.62

**Q. Display the cube of sales using two fact\_id.**

SQL> select fact\_1\_id,fact\_2\_id,sum(sales) as sales\_value from dimenssion\_tab1

2 group by cube(fact\_1\_id,fact\_2\_id) order by fact\_1\_id,fact\_2\_id;

FACT\_1\_ID FACT\_2\_ID SALES\_VALUE

---------- ---------- -----------

1 1 185.17

1 2 542.05

1 3 641.91

1 4 315.68

1 5 463.16

1 2147.97

2 1 790.91

2 2 796.71

FACT\_1\_ID FACT\_2\_ID SALES\_VALUE

---------- ---------- -----------

2 3313.65

1 976.08

2 1338.76

3 1038.03

4 1006.49

5 1102.26

5461.62

**Q. Display the partial cube of sales.**

SQL> select fact\_1\_id,fact\_2\_id,fact\_3\_id,sum(sales) as sales\_value from dimenssion\_tab1

group by fact\_1\_id,cube(fact\_2\_id,fact\_3\_id) order by fact\_1\_id,fact\_2\_id,fact\_3\_id;

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID SALES\_VALUE

---------- ---------- ---------- -----------

1 1 3 76.04

1 1 7 22.49

1 1 10 86.64

1 1 185.17

1 2 2 137.25

1 2 5 104.32

1 2 6 51.47

1 2 7 232.85

1 2 8 16.16

1 2 542.05

1 3 1 84.35

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID SALES\_VALUE

---------- ---------- ---------- -----------

1 3 2 16.83

1 3 4 135.59

1 3 5 90.8

1 3 6 84.52

1 3 7 148.37

1 3 9 54.06

1 3 10 27.39

1 3 641.91

1 4 2 9

1 4 4 13

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID SALES\_VALUE

---------- ---------- ---------- -----------

1 4 6 11.68

1 4 7 48.88

1 4 8 62.4

1 4 315.68

1 5 1 67.22

1 5 3 92.08

1 5 4 75.18

1 5 5 132.42

1 5 6 96.26

1 5 463.16

1 1 151.57

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID SALES\_VALUE

---------- ---------- ---------- -----------

1 2 163.08

1 3 168.12

1 4 344.14

1 5 377.89

1 6 243.93

1 7 452.59

1 8 78.56

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID SALES\_VALUE

---------- ---------- ---------- -----------

2 1 2 80.75

2 1 4 51.31

2 1 5 47.6

2 1 6 241.65

2 1 7 86.66

2 1 9 111.06

2 1 10 160.93

2 1 790.91

2 2 1 163.8

2 2 2 54.32

2 2 3 87.08

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID SALES\_VALUE

---------- ---------- ---------- -----------

2 2 4 68.1

2 2 6 76.5

2 2 7 166.27

2 2 9 180.64

2 2 796.71

2 3 1 74.08

2 3 3 14.35

2 3 4 127.37

2 3 6 86.45

2 3 7 76.29

2 3 10 17.58

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID SALES\_VALUE

---------- ---------- ---------- -----------

2 3 396.12

2 4 3 99.62

2 4 5 213.35

2 4 6 290.85

2 4 8 2.84

2 4 9 84.15

2 4 690.81

2 5 1 50.78

2 5 2 62.05

2 5 3 252.22

2 5 4 30.59

FACT\_1\_ID FACT\_2\_ID FACT\_3\_ID SALES\_VALUE

---------- ---------- ---------- -----------

2 5 7 71.64

2 5 8 98.36

2 5 9 73.46

2 5 639.1

2 1 299.61

2 2 197.12

2 3 453.27

2 4 277.37

2 5 260.95

2 6 695.45

2 7 400.86